The Ballarat Naturalist

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Friday 4th August "FrogID: Informing Frog Conservation Through Citizen Science"

Report By Angela Aldred

Nadiah Roslan has worked as the FrogID Project Coordinator at the Australian Museum Research Institute since 2020. She studied Zoology at ANU and Tropical Marine Ecology, then Terrestrial Ecology in northern Queensland.

FrogID is an Australian Museum Research Institute citizen science project. Since 2017 it has used the power of citizen science to broaden conservation research, through capturing more data than could otherwise be collected by scientist researchers alone. Citizen scientists record frog calls using the FrogID smartphone App, then submit them to the Australian Museum for verification and research data collection.

Why was FrogID created?

Amphibians are facing a global crisis, with 42% of species threatened with extinction.

A quarter of Australian frogs are under threat, major threats including-

-disease, especially the amphibian chytrid fungus.

-habitat loss and degradation of both feeding and breeding grounds.

-pollution- frogs have permeable skin, so industrial chemicals and pesticides are absorbed and can shut down vital body systems.

-introduced species, e.g. the cane toad can out compete native frogs for habitat and food.

-wildlife trade, this is not as much of a threat in Australia, as in other parts of the world.

-climate change has an overriding effect on all these stressors.

Frogs are bio-indicators of ecosystem health. Their permeable skin makes them vulnerable to changes in their environment. Thus, they are an indicator animal.

Frogs are integral parts of ecosystems, tadpoles are a food source for other animals, they also keep water clean.

Frogs have contributed to medical advancements, peptides with antibacterial and antifungal properties have been found in the Crucifix Frog (*Notaden bennetti*).
Australia has unique frog diversity which we need to protect for our unique ecosystems.

The critical gap is the lack of scientific understanding of Australian frogs, we don't have records of frogs for many areas in Australia and we still don't know many of their species. 218 of the 240 known Australian frog species have been recorded using FrogID. The most recent species to be recorded is the Southern Stuttering Barred Frog (*Myxophyes balbus*), previously thought to be extinct in southern locations. The Screaming Tree Frog (*Litoria quiritatus*) was first identified through the FrogID project. FrogID collected the first recorded call of the Southern Sandhill Frog (*Arenophryne xiphorhyncha*), a previously known species, that had never had its call recorded prior to FrogID (the sound of a squelchy fart!).

All frogs call, the male calls to attract a female. The calls can be croaks, whistles, creaks, barks. However diverse the calls sound, they can be recorded without disturbing the animal, making call recording an ideal way to capture identifying data about frogs. This can easily be done by citizen scientists. Frog call recordings provide highly accurate information. The FrogID project has determined that reliable acoustic FrogID data gathered scientific records of cryptic species at 17 times higher than non-acoustic records.

What is the FrogID App?
-A free smartphone App available in both Android and iOS versions.
-It is easily used to record frog calls, even in remote areas.
-It contains a comprehensive frog field guide which is updated quickly with new data.
-It provides expert verification of field calls recorded.
-The user records for 20 seconds. If a frog call is recorded within this time, the recording is useful.
-The user then selects the habitat features from a list of filters, to help shortlist species.
-The user can then match the frog call to known species.
-The recorded call and information is sent to the Australian Museum for verification.
-The verification of species is sent back to the user who recorded it.

The FrogID webpage (frogid.net.au) can be used to download the App, create a user account, learn about frogs, see frog species distribution maps and research results from FrogID data. You can also see a tally of your own frog call recordings submitted, verified frog calls and species detected. You can share your profile, export your frog call recordings and collect badges to reward your submission of frog call recordings. You can also opt in/out of surveys.

FrogID call validators look at the details of, and listen to every frog call recording submitted, taking into account the time, location and GPS accuracy associated with the recording, before verifying frog species heard. The resulting verification and species identification report is emailed to the sender.

Over the last 5½ years the FrogID App has had 40,000 users, 560,000 calls submitted, with 920,000 frog calls verified (often more than one in a single submission). 218 frog species have been detected in submitted recordings- 85% of the known Australian species. The number of submissions is increasing with time. Peak numbers of recordings are submitted during FrogID week in Spring each year.

How is FrogID data informing frog research?
Thanks to the submissions of citizen scientists, the growing database of biodiversity records and audio recordings has contributed in many ways to scientific research. 18 scientific research papers have been published using FrogID data.

Notable research results include-
-7000 frog call records helped to show that the Green Tree Frog (*Litoria caerulea*) has disappeared from Sydney backyards. No Green Tree Frogs were recorded in the inner suburbs, where they had been found previously.
-FrogID data has contributed to assessments of endangered species and their conservation guidelines, e.g.-analysis of over 2500 recordings of the endangered Sloanes Froglet (*Crinia sloanei*), found around the NSW/Victorian border, showed more froglets living in Victoria than previously thought.
Additionally, 75% of post 2019/20 bushfire FrogID recordings of the vulnerable Sphagnum Frog (*Philoria sphagnicolus*), were from unburnt sites.
-FrogID-based records and statistics of the Cane Toad, an introduced species, have been sent to government agencies for monitoring the spread of this species.
-FrogID data has been used to show the spread of native frog species outside their usual range - The Eastern Dwarf Tree Frog (*Litoria*

fallax) has an expanding range in the eastern states of Australia. These small frogs are hitch-hiking to areas outside their usual range, possibly in nursery plants and on fruit in trucks.
-70% of 87 frog species were found to be intolerant of human-modified habitats. The Striped Marsh Frog (*Limnodynastes peronii*) and the White-lipped Tree Frog (*Litoria infrafrenata*) were found to be tolerant of these modified habitats.
-Is human driven habitat modification altering frog breeding? FrogID data showed a longer breeding season is induced by human modification of frog habitats. The breeding season started 3 weeks earlier than in unmodified habitats.
-Due to difficulty of access by scientists to areas recently burnt in the 2019/20 eastern states bushfires, FrogID data was used to monitor frog species after the fires. A growing citizen science-led dataset confirmed that all species present in each area before the fires, persisted in their location for at least 4 months after the fires.
What environmental factors stimulate frog breeding? Analysis of FrogID data shows there is a strong seasonal signal, the time of the year is more connected to frog calling, and thus breeding, than temperature or rainfall.

An Australian Frog Atlas on the FrogID website has been developed in the last year. Frog distribution maps informed by the FrogID dataset are available for viewing the locations of all frog species except vulnerable species. The maps will be updated each year and replace earlier maps with more accurate data.

Nadiah demonstrated the Australian Frog Atlas by finding the top recorded frogs in the Ballarat local government area.
At www.frogid.net.au/explore you can filter by LGA and species. 4000 records from 242 users have detected 12 species in this area. Locations of the endangered Growling Grass Frog are not shared publicly, but are uploaded to the Atlas of Living Australia for recording.
The most prolific local frog was the Common Eastern Froglet (*Crinia signifera*), the most common frog in south-eastern Australia. The next most abundant local frog was the Brown Tree Frog (*Litoria ewingii*), a winter breeder. The third most abundant local frog was the Eastern Banjo Frog (*Limnodynastes dumerilii*) which calls in the warmer months from September. The Spotted Marsh Frog (*Limnodynastes tasmanensis*), present in our LGA, has different versions of its call- in Victoria it has a slow single click. The Spotted Marsh Frog (*Limnodynastes peronii*), also present in our LGA, has a call like a dripping tap, with two-tone clicks.

Museum Australia would also like more recordings of threatened species. Nadiah demonstrated the call of the Black Saturday fire-threatened Bibron's Toadlet (*Pseudophryne bibronii*), which has a grating clicks call peaking in April and May. She also demonstrated the growling call of the vulnerable Southern Bell Frog or Growling Grass Frog (*Litoria raniformis*), which now exists only in small isolated populations, with peak calls from September to December.

FrogID users can subscribe to a free periodic newsletter to receive updates about the App, recordings and scientific results from the recordings.

Dead, shriveled Green Tree Frogs have been appearing in eastern Australia since 2020. Please report any such frogs to the FrogID email address on their website (calls@frogid.net.au). Disease is the main suspect for killing these frogs. The Australian Museum is looking at other factors that may be involved.

How else can we contribute to frog conservation?
-Provide frog habitat at home- a pond with plants and rocks, with a ramp for frogs to easily exit the water.
-Download the free FrogID App now! Every recording counts.
-Submit more recordings from all parts of Australia, particularly repeat recordings made in remote parts of Australia. When out of phone reception coverage, recordings can still be made. They are submitted when back in reception
-Submit recordings from areas of Australia not yet covered by recordings (see the uncovered white areas on the map at frogid.net.au/spatial coverage).
-Get involved and advertise Frog ID Week, 3-12 November 2023. Last year 3 recordings per minute were submitted!

Our self-confessed long-time frogger and FrogID addict, Andy Arnold, thanked Nadiah heartily for her illuminating talk, which included a feast of frog calls played.

Here are some links to handy FrogID resources that Nadiah Roslan kindly sent through after her presentation (Ctrl + Click to follow link):
FrogID FAQs: https://www.frogid.net.au/faq
Interactive grid count map (I recommend downloading and opening it from a PC): https://www.frogid.net.au/spatial-coverage
Scientific findings: https://www.frogid.net.au/science
Contact email: calls@frogid.net.au

BALLARAT FIELD NATURALISTS EXCURSION - LAL LAL 6 AUGUST 2023

Report by Graeme Lunt

On the morning of Sunday 6th August the Ballarat Field Naturalists met at the Lal Lal Station for an excursion around the Lal Lal area.

Brief history of Lal Lal

The area around Lal Lal was traditionally the country of the Wathawurrung people and the 33 metre falls on the Lal Lal Creek into the Moorabool Gorge are one of Victoria's most significant indigenous cultural sites.

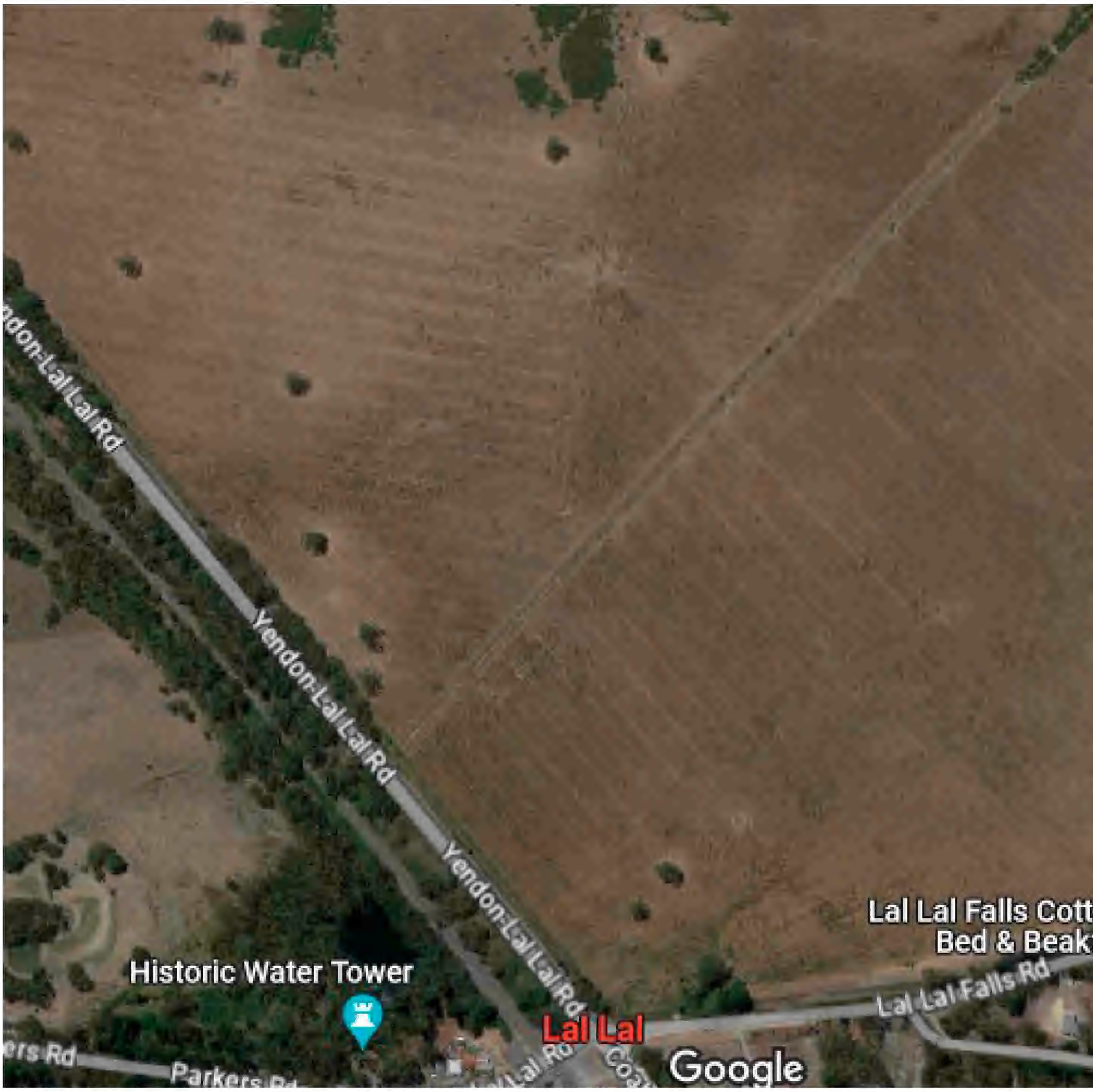
The railway between Geelong and Ballarat opened on 10 April 1862 and the station at Lal Lal was opened to the public on the following day. The railway led to the creation of a number of industries around Lal Lal in addition to timber cutting. At its height the population of Lal Lal was more than 300 and the village included a primary school, 2 churches and two hotels. The railways employed 23 workers in the late 19th century and the station at Lal Lal included several sidings serving the local industries, a turntable, an engine repair shop and houses supplied nearby for gangers and the gate keeper. Lignite was found in large quantities, also rich deposits of iron. A bed of fire clay was found near the railway station area, from which high class fire brick were made

.

Lal Lal Station and surroundings

The excursion began at the Lal Lal station and Andy pointed out the site of the now drained Lal Lal swamp, originally a shallow lake. The sandy soils in the area are from the original lake.– see image at right

Looking NW, you can see the outline of the former Lal Lal swamp now drained dry. The drains can be faintly seen in satellite images of the area. The surrounding flat low-lying grazing land is the former Lal Lal swamp bottom. Now growing pasture, the overlying geological layer is 5 metres of quaternary brown lacustrine clay and soil. This overlies a well weathered kaolinite clay derived from Adamellite granite resulting from what was originally a Devonian igneous intrusion. The Lal Lal Adamellite is almost certainly part of the same pluton (igneous intrusion) as the Gong Gong outcrop of granite, and this also extends northwest as far as Mount Egerton where kaolinite was previously extracted and the mine there is now in "mothballs". Adamellite is a granite which is medium to coarse grained with phenocrysts of felspar consisting of roughly half orthoclase and half plagioclase. Felspars are found in almost all igneous rocks and rocks formed from them. All are aluminium silicates combined with two or more metals. Orthoclase is a potash felspar and plagioclase is a soda-lime feldspar. Adamellite also contains only 20-25% quartz and about 15% biotite mica. Evidence of the original granite can be found on the NW side of Lal Lal Swamp.



From the starting point, the site of the Lal Lal brickworks was pointed out and the derelict brick kitchen of one of the now demolished hotels which, along with the local primary school, was built with local bricks.

The group then walked across the road to inspect the memorial plaque to the two miners killed in an accident at the local lignite mine on 22 February 1921 when water from older unmapped workings flooded the shaft.

Newspaper report- MINE ACCIDENT AT LAL LAL
TWO MEN ENTOMBED.

A serious mining accident occurred about six last evening at the Lal Lal coal mine. Four men comprising the 4 o'clock shift were at the 220 feet level, when there was a sudden inrush of water. D. Lawson and F. Adams succeeded in making their escape but E. Parker, returned soldier, single, and M. Ellis, married, were entombed by the rising water. Mr. Corbett, the manager, was having tea at the time. He at once went to the mine to superintend efforts for releasing the men. Practically everyone in the district turned out to render assistance and pumping is now in progress. The legal manager in Melbourne has been communicated with in order to procure a diver to go to the entombed men's assistance. It is thought possibly the two men may have taken refuge in a part of the drive not yet reached by water:

Lal Lal Lignite Mine

The group then went along Coalmine Rd to see the location of the lignite mine and the spoil heap of the lignite mine which is on private property.

Miners sinking a shaft in search of alluvial gold found the coal in 1857. Between 1863 and the late 1890s the Victorian Lignite company extracted 13,000 tonnes of coal from a 35-metre-deep shaft and intermittent mining between 1912 and 1922 by the Corbett company yielded a further 43,500 tonnes.

The coal is part of the non-outcropping Lal Lal formation of Palaeocene to Eocene age which occupies a buried SE-trending basin. The basin is only one kilometre wide and is probably fault-bounded. The formation consists mainly of clays with probably 3 periods of coal deposition. The greatest thickness of the coal intersected in a bore hole is 26 metres, but the average seam thickness is only 4.3 metres. The average depth of overburden is 33 metres. The overburden consists of Pleistocene high-level alluvium and colluvium. At its best the coal is a good quality brown coal and the moisture content is below that of the Latrobe valley beds. However, there is unlikely to be any further development at Lal Lal not only because of climate change but because the resource is only 2.5 million tonnes in the upper seam. The deposits are also very variable in ash content, thickness, and composition.

Also in Coalmine Rd, is the point where the tramway from the blast furnace and branch line to the Lal Lal racecourse met the main Geelong/Ballarat railway. The lignite mine also had a siding in the area.

On the railway line to the south lies Elaine and it was on this section of line in 1892 that the Geelong/Ballarat passenger trains collided with a slower goods train.

GOODS TRAIN OVERTAKEN BY AN EXPRESS.

A serious railway accident occurred in Saturday evening at Mount Doran, in the Geelong and Ballarat line, and within two miles of Lal Lal. The news conveyed to Ballarat was to the effect that a number of persons in the Melbourne express had been killed in a collision with a goods train, and that several had been badly injured. Great anxiety was displayed by persons who had friends coming on to Ballarat in the express, and it required a good deal of pressure on the part of the station master to convince them that the whole of the passengers were apparently unhurt.

The facts of the affair are that the goods train which left Geelong at 4.30 on Saturday afternoon was at Mount Doran, ascending the bank at the rate of 15 miles an hour, when the Adelaide express suddenly swept around a sharp curve at a speed of between 40 and 45 miles per hour, dashing into the goods train, which consisted of 23 empty and 3 laden vehicles, and partially wrecking it.

The guard's van was knocked across the rails at a right angle and shattered, and the truck to which the van was attached, was turned completely over on to the up-road. Three other trucks were smashed, the pieces of timber being hurled about in all directions. Strange to say the concussion felt by the passengers was only slight; indeed, many thought the train had merely stopped suddenly at a roadside station. The carriages were not damaged and the engine escaped with a slight shaking, the brake pipe, the lamps, one of the buffers and portion of the iron casing only meeting with injury. Damage estimated at nearly £2000 was, however, done to the goods train. It is stated that the goods train had only left Elaine 10 minutes before the arrival of the express, and it is urged that the latter should have been detained at Elaine for a quarter of an hour in order to allow the goods train to get well ahead. There is a rule in the department that all luggage trains should get a quarter of an hour's start of passenger trains if possible, and that if this cannot be obtained, the goods train should be run on to a siding to allow the passenger train to pass. In railway circles an opinion was given that the goods engine was unable to make the requisite pace with its 26 vehicles up the steep bank, and that consequently the express, whose load was only equivalent to six ordinary carriages, gained on the goods train, which was supposed to be at Lal Lal siding, The driver of the express says that the night was fine and clear, and that the collision occurred between 6.42 and 6.45, that he was just running to time, and that the goods train should not have been where it was. In turning the curve he saw the red tail light of the goods train about 100 yards in front, *and he immediately put on the brake, which worked splendidly, and considerably reduced the pace. Directly the express turned the curve the guard of the goods train saw the danger and got on the footboard of the van and with his red lamp signalled to the express to stop. The driver of his train, observed the signal, and addressing his fireman, exclaimed, " My ------ Joe ! here's the express on our track coming down upon us." He then put on extra steam, expecting to race ahead, but his efforts were without avail.*

Travelling in the express were several railway employees, including drivers John Falla, Geo. Brown, Leith, and an engine man from South Australia. The concussion upset the luggage from the shelves on to them, and Mr Falla, guessing what had occurred, jumped through the window and hastened to the express driver and goods guard. The driver of the express was found stepping from his engine quite cool, but the guard of the goods train was not to be found, and it was subsequently ascertained that he had jumped from his van when he saw there was no possibility of the express stopping, though the train was travelling at the rate of 20 miles an hour, and he fell into a trench, and on getting out of the quagmire ran ahead to his train. The portion of the railway between Lal Lal and Elaine is the most dangerous section on this line, and yet, singular to say, the block system has not been introduced on it.

On news of the accident being telegraphed to Ballarat, a train with casualty van attached, conveying Drs. Scott and Ochiltree and about 30 platelayers, was dispatched to the scene of the disaster. Of the passengers, John Westwood, late city ranger of Ballarat, complained that he had been severely shaken, and a little girl, aged 10 years, named Eileen Incledon, daughter of a store keeper at Wickliffe-road, was thrown from her seat against the opposite wall of the carriage, and the shock caused her to take a fit. All the other passengers, said they had sustained no injury. The engine drawing the express was No. 406, of the A pattern, and manufactured by the Phoenix Foundry Company, while the loco- motive attached to the goods train was No. 61, of the Beyer and Peacock make. The driver of the express was John Williams, one of the oldest and most careful men in the service, and he had as an assistant Fireman Purcell. Driving the goods train was J. H. James, who has had 12 years experience on the railways, and his stoker was Joseph Brawn, with Samuel Hanna as guard. The Melbourne or up line was cleared of wreckage at 10 o'clock on Saturday night, but the down line was not ready for traffic until 4 o'clock this morning. The 30 navvies from Ballarat were joined by an equal number from Geelong, and all worked hard. The 7.30 train to Geelong did not leave Ballarat till after 12 p.m., and the trains from Geelong to Ballarat were also all delayed, the last one not arriving until 10 o'clock to-day.

Travelling from Lal Lal to the Blast Furnace site, a brief stop was made on the Ironmine Rd to examine the sandy lunette, a remnant of the lake.

Lal Lal Ironmine and Blast Furnace

The group then travelled to the site of the Lal Lal Ironmine and Blast furnace, where after lunch one of the iron mines and the remnants of the blast furnace and associated works was inspected.

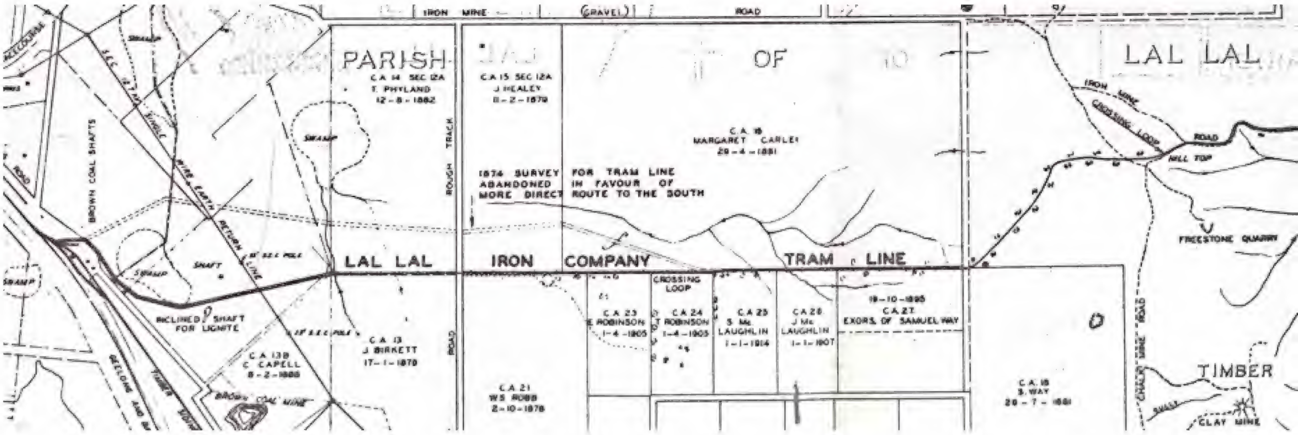
The Iron Mine company: By the early 1870s Ballarat had become a busy engineering centre requiring large quantities of pig iron for its many foundries which were turning out mining machinery, ornamental cast iron, railway locomotives and a host of other domestic and commercial items.

Local businessmen in Ballarat were keen to utilise the deposits of iron ore discovered in 1857 on the West Bank of the West Moorabool River about 3 1/2 miles from Lal Lal. An early step in this direction was taken on the 3rd of January 1874 when the Courier published a prospectus to form a company to work this deposit. After several meetings of perspective investors the Lal Lal iron company limited was registered on the 18th of February 1874' the nominal capital being 48 1000 pounds in 480 shares of 100 pounds each. Crown lease number 397. Over 320 acres was granted and Mr Swifts was appointed as manager and charged with the responsibility of finding the best method of building a blast furnace to smelt the ore and erect rolling mills on the site.

During the years 1875 to 1878 the company was experiencing teething troubles with the smelter and much time was spent on finding the best fuel for the furnace, using at different times, charcoal because timber was plentiful in the lease, brown coal because there was a large deposit nearby and coke, which would have had to be brought from either Geelong or Ballarat. Finally, the mine and smelter were officially opened on the 26th of October 1878 by the Chief Secretary of Victoria Mr Graham Berry. By early 1882 there was evidence that the company was having considerable financial difficulties due to competition from English steel mills that were able to ship pig into Australia as ballast and sell it to the foundries in Ballarat at a price far below that which could be produced economically by the Lal Lal company. Another reason was the enormous cost of transporting the raw materials to and from the works. The only way of transporting supplies to the smelting works was by bullock wagon along roughly formed roads put down by the local Shire. There was a rough track just wide enough for the wagons which had been cut through the bush by the company. In dry weather these hardy beasts managed quite well but whenever it rained the rough track into the works became impassable. The result of this situation was that supplies of coke and limestone could not be assured on a reliable basis, so the works had to shut down. In 1883 the smelter only worked for four months of the year due to these problems.

The blast furnace today

Back in June 1881 the first of what was to be many deputations from the company directors to the Minister for Railways, requested freight concessions on limestone supplies that were quarried at Leigh Rd (Batesford) and the pig iron needing to be sent to Ballarat and to Melbourne. In return for these concessions the company offered to purchase from the railways sufficient rails to build a tramway to the works. In 1874 a tramway route had been surveyed to link the work site with the railway. It skirted around the lignite swamp on the north side whereas the line that was built eventually in 1883 – 4 was south of the swamp.



Robert Ashley et al, 'The Lal Lal Iron Tramway', 1970

Tenders for the Tramway were advertised in Ballarat Courier 23rd Oct 1883. A contract was let by 5th Nov and construction commenced almost immediately. As the need for earthworks was minimal, the roadbed was only about 5 foot wide and 18 inches high. The contractor was able to have the line completed up to the company's boundary in just two weeks. The actual gauge is unknown but local opinion puts it at between two and three feet.

At approximately 87 miles on the then main Melbourne to Ballarat line and about 3/4 of a mile southeast of Lal railway station there was a turn out from the main line for a siding to the lignite mine. A short distance after leaving the main line, the siding split into two, the outer one for the iron company and the inner for the lignite company. The Iron Mine company's siding was very short and due to the first few chains of it being in a shallow cutting, the tramway most probably was laid so that empty skips to be filled with limestone and coke would have been below that floor level of the Victorian railways wagons' and skips loaded with pig iron from the works would have taken advantage of the slope of the land and been slightly above the floor level of the Victorian railways wagons.

The walk around the area of the blast furnace ended at the lookout overlooking the Bungal Dam on the West Moorabool River.

After the severe drought in the late 1960s, construction was started in February 1970 by Premier Henry Bolte and was completed by 1972 at a cost of $5 million. The water is used to supply Geelong and Ballarat. The construction of the dam has had a dramatic impact on the Moorabool River, highly modifying flows and causing the narrowing and choking of a substantial length of it. Average flows of 90ML per day have been reduced to just 10ML by the time it joins the Barwon. (Submission No 891 INQUIRY INTO ECOSYSTEM DECLINE IN VICTORIA 2020).

A small hydroelectric generator was established at the dam in 2016 which produces up to 526MW of electricity and is used to run the Lal Lal Water Treatment Plant, with any excess electricity fed back into the grid.

Lal Lal Falls Racecourse

Leaving the blast furnace area after lunch a short stop was made on Ironmine Rd to see an extensive patch of of greenhood orchids. Turning off the Falls Rd at Diamonds Rd and into Diamonds Lane the group drove a short distance to see the terminus of the Racecourse branch line and the location of the racecourse. A large mob of kangaroos were seen.

Race meetings were first held at the site in 1864 and the grandstand, since demolished could hold 1000 patrons. At its height up to 30000 visitors from Ballarat and the district were travelling to race meetings on special trains. The rail line to the racecourse was opened in 1886 and the last race meeting was held in 1938. The line was dismantled soon after.

Lal Lal Falls

Travelling the short distance to the Lal Lal Falls, the group went to the viewing area to see the Falls. Some water was flowing over the falls but not a huge amount.

From there we walked to the area known as Von Guerard's seat. In February and March 1856, the travelling colonial artist and explorer, Eugene Von Gerard went on a trip to the Geelong region. Von Gerard had in mind to sketch the spectacular but little-known water-falls and geological formations of the Lal Lal Creek in the Moorabool River catchment and his interest in these sites had been aroused on previous visits to Ballarat. By late afternoon on the 28th of Feb 1856, he reached, Clarendon 14 miles South of Ballarat where he spent two nights at the Corduroy Bridge Hotel. From the hotel he sketched the familiar form of Mount Buninyong in the afternoon light. He set out early next morning to walk the 9 to 10 kms to Lal Lal falls. He most likely passed through Lal Lal, skirting around southern boundary of the then extensive swamp, probably on the raised sandy lunette on its south and east side.

Hairy Anchor Plants

The excursion ended with the group moving to the North side of the Falls to inspect the Hairy Anchor Plants. The area had been fenced off by FNCB to exclude grazing of the plants Some of these plants grew from seedlings that had been planted. However, it seems that only the original mature plants have survived. and none reproduced by self seeding.

Report images from Carol Hall and Val Hocking

Observations

Birds

- Magpie
- Galah
- Little Raven
- Pied Currawong
- Red Wattlebird
- Wood Duck
- Crimson Rosella
- Welcome Swallow
- Sulphur Crested Cockatoo
- Spotted Pardalote
- Grey Shrike-thrush
- White Naped Honeyeater
- Corella sp.
- Golden Whistler
- Superb Fairy Wren
- Kookaburra
- Striated pardalote
- Pacific Black Duck

Animals

- Bats (droppings at station)
- Eastern Grey Kangaroo
- Rabbit
- Swamp Wallaby
- Echidna (digging)

Plants

- Acacia paradoxa
- Pink Heath
- Grass tree
- Silver Wattle
- Hop Wattle
- Manna Gum
- Messmate
- Sifton bush
- Hedgehog fungus
- Cut Leaf Daisy
- Rosemary Grevillea
- Geranium sp
- Hairy Anchor Plant (x 23)

1885 EXCURSION TO LAL LAL

At the suggestion of the Field Naturalists Club of Victoria, a joint excursion of that club and the members of the Ballarat Field Club, was held on Monday. The locality chosen for the trip was the picturesque valley of the Moorabool River at Lal Lal. About 65 people attended, including several ladies. Some Melbourne visitors spent the Sunday at Ballarat and left that city with the local party by the first train for Lal Lal and thence to the camping ground. The other section of the Melbourne party was met at the Lal Lal station by the hon secretaries of the two clubs and were conducted to the Lal Lal Creek where the geological formation of the gorge and falls was explained A descent was made into the valley and the creek was followed to its junction as far as the falls. At about midday luncheon, provided by the Ballarat Club, was served. Later the company dispersed ,some searching for insects, some making botanical studies and others fern gathering, &c.

Though the number of specimens collected was not large, several rare specimens were noted. The season, however, was not far enough advanced for insect life and almost too late for wildflowers. After an early tea ,again provided by the Ballarat Club, a start was made to catch the last train for Melbourne.

Highlights from FNCB Meeting Minutes 7.30pm, Aug4th 2023

held in person and via Zoom
President Margaret Rich welcomed 19 members and one visitor in person, plus nine visitors and nine members via Zoom,

Guest Speaker: "Frog ID: informing frog conservation through citizen science" was presented by Nadiah Roslan, Frog ID Coordinator at the Australian Museum Research Institute. It showcased the remarkable impacts and scope of Frog ID in just five and a half years, with much more to be learnt thanks to the data being collected by volunteers all over Australia.

Business Arising from Previous Club Meeting on July 7, 2023
- A rubber stamp with the FNCB Club logo was purchased to stamp each publication in the Club library ready for re-housing at Clarkesdale Bird Sanctuary.
- A letter documenting the terms of re-housing the library at Clarkesdale is yet to be drafted.

Business Arising from Correspondence:
Discussed participating in the event being planned by the new-Friends of Ballarat Botanical Gardens Biodiversity Group on **Saturday 14th October**. The Group is a very lively group. John P plans to work on updating the FNCB one-page promotional flyer developed for last year's youth volunteering event. We'll work towards at least having a couple of members attend to chat to attendees about the Club and what we do.

Treasurer's Report

Opening bal. (as at July 7): $9,404.66
Income $15.00
Expenses: $158.80
Closing bal.: $9,260.86

The Treasurer's Report was accepted and tabled invoice for printing was approved for payment. Moved: K. Elder Seconded: E. Bird

General Business

- Sunday 6th August field trip, Lal Lal Falls and Historic Area, to be led by club members Andy Arnold with support from Graeme Lunt.
- John Petheram has kindly volunteered to write up the September Club field trip to Lake Corangamite.

Show & Tell/ Field Reports

- Les found a Spotted Grass Frog at a posthole at his property in Bungaree that was identified when he submitted a photo on iNaturalist. He found more of these frogs in the posthole and it appeared that they were unable to climb out, which was affirmed by our guest speaker Nadiah's point tonight that many frogs are poor climbers and need structural elements such as fallen branches to get out of waterbodies.

- Community groups approached FNCB in June with concerns about proposed logging in three coupes in Glen Park SF that appeared to be imminent, with maps on the VicForests website stating "July 2023" starting dates and VicForests staff seen in the reserve collecting data. They were hoping that we could share Club records of any significant species in the area, and they were racing around trying to gather flora and fauna records through plant surveys and spotlighting, etc. John thought it best to first check whether there was in fact any logging or timber utilisation/ storm damage clean-up imminently proposed in Glen Park SF and was informed by VicForests that logging is not in fact imminently proposed in these areas. He learned that they now operate under a new model called "Community Forestry" that gives us as an interested party the opportunity to nominate forested areas covered in the Timber Utilisation Plan in which we have an interest. In this way, we will be kept informed about any proposed or upcoming works in those areas/ changes to plans and have a chance to provide input/ raise concerns/ highlight special values, etc. We will be looking into this in more detail.

Next Meeting: "By Land and Sea - Gems of NSW's Far South Coast." This talk will be presented by club members Jenny and Peter Sedgwick.
When? Friday 1st September 2023, 7.30pm in person at the Federation University building at the corner of Gillies St & Gregory St, Wendouree or via Zoom if you prefer.

N.B. To avoid clashing with Father's Day, the September field trip is one week later than usual on Sunday 10th September to the Lake Corangamite area.

Meeting closed: 9.06 pm

Reporting or Enquiring about Nature Conservation Issues on Local Public Land

Guidelines have been prepared to make it easy for members to report, enquire, provide feedback or request to be included in future consultation processes with relevant land management authorities, all with the aim of improving nature conservation, protection and management outcomes.
The document includes numerous links to online reporting & feedback forms, key email addresses and websites, so we suggest that you save it somewhere easy to access/ remember on your computer. A copy of the document has been included as an extra attachment with this newsletter mail out.

Knock, knock
Who's there?
Wendy
Wendy who?
Wendy red, red robin comes
bop, bop, boppin' along!

Sunday 10th September
field trip to Lake Corangamite area

to be led by Leon Bren (who was our guest speaker earlier this year) with assistance on the day from Margaret and Andy. The convoy/ carpoolers will leave from the Federation University carpark on the corner of Gillies Street and Gregory St, Wendouree at the earlier time of 8:30am sharp for travel to five sites in the Lake Corangamite area, returning at 4.30pm. Car-pooling is strongly encouraged.

Wear appropriate clothing and clean boots. You could bring binoculars, a hand lens, camera and field guides, plus your food and drinks for the day, and a suggested $20 to give to your driver to contribute to fuel costs if car-pooling.

Excursions and Meetings

Fri 1st Sept Peter & Jenny Sedgewick *By Land and Sea - Gems of NSW's Far South Coast*

Sun 10th Sept Lake Corangamite led by Leon Bren & supported by Margaret Rich & Andy Arnold

Future events

Fri 6th Oct Susan Kruss: *Inspiring stories from the FNCB's illustrious past.*

Sat 7th Oct evening Ray & Cherie Draper: *Frogs at Mullawallah Wetland*

Next Committee meeting Tuesday 26th Sept at 7.30 pm via zoom

SEANA Camp in Spring (October 20-23).based in Yarram and hosted jointly by the Latrobe Valley and Sale & District FN Clubs-book now!

Club meetings are normally held on 1st Friday of the month at 7.30 pm at the Federation Uni Gillies St Campus (corner of Gillies and Gregory Sts, Lake Wendouree),

Committee

President	Margaret Rich
Secretary	Emily Noble
Treasurer	Kathy Elder
Committee	Andy Arnold
	Val Hocking
	Graeme Lunt
	John Petheram
	Elva Bird
	Sheree Cartledge

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Meetings - in person and may continue to be held via Zoom.
Members will be kept informed of arrangements each month.

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